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EXPEDITED PROCEDURE REQUESTED UNDER 37 CFR § 1.116
Application Serial No. 09/489,517

REMARKS

In the Final Office Action, the Examiner rejected claims 1-3, 6-11, 13-16, 19-24, 26-32, and 34-36 under 35 U.S.C. § 103(a) as unpatentable over Garg et al. (U.S. Patent No. 6,543,346) in view of Robins et al. (U.S. Patent No. 5,049,873); rejected claims 4, 5, 17, and 18 under 35 U.S.C. § 103(a) as unpatentable over Garg et al. in view of Robins et al. and Feldmann (U.S. Patent Application Publication No. US 2002/0021675 A1); and rejected claims 12, 25, and 33 under 35 U.S.C. § 103(a) as unpatentable over Garg et al. in view of Robins et al. and Lane (U.S. Patent No. 5,437,009).

Applicant respectfully traverses the Examiner's rejections under 35 U.S.C. § 103. Claims 1-36 remain pending.

In paragraph 5 of the Final Office Action, the Examiner rejected claims 1-3, 6-11, 13-16, 19-24, 26-32, and 34-36 under 35 U.S.C. § 103(a) as allegedly unpatentable over Garg et al. in view of Robins et al. Applicant respectfully traverses the rejection.

Claim 1, for example, includes a combination of features of a method for visualizing a network that includes a plurality of nodes. The method includes collecting information from at least one of the nodes, where the information describes network operation over a period of time; reconstructing the network operation for the time period from the collected information; and replaying, for an operator, the network operation as the network operation occurred during the time period using the reconstructed network operation.

Neither Garg et al. nor Robins et al., whether taken alone or in any reasonable combination, discloses or suggests this claimed combination. For example, neither Garg et al.

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nor Robins et al. discloses replaying, for an operator, network operation as the network operation occurred during a time period using reconstructed network operation. Applicant explained this deficiency in the disclosures of Garg et al. and Robins et al. in the Amendment, filed July 7, 2003.

The Examiner did not address this feature when rejecting claim 1 (Final Office Action, pages 3-4). Instead, the Examiner merely repeated the prior rejection of the claim without addressing the features added by the Amendment, filed July 7, 2003.

In paragraph 3 of the Final Office Action, however, the Examiner alleged that the term at issue is "network operation" and Garg et al. discloses network operation. Applicant submits that the Examiner has misconstrued the arguments Applicant presented in the previously-submitted Amendment.

The "issue" is not whether Garg et al. discloses network operation, but whether Garg et al. discloses "replaying, for an operator, the network operation as the network operation occurred during the time period using the reconstructed network operation," as recited in claim 1. Garg et al. does not disclose this replaying feature. The Examiner cited various portions of Garg et al. where the words "network operation" allegedly appear (Final Office Action, paragraph 3). None of these sections, or any other portion, of Garg et al. discloses or suggests replaying network operation as the network operation occurred during a time period, as recited in claim 1.

Instead, Garg et al. discloses that a prior configuration of the network can be reconstructed using a combination of configuration log 158 and base configuration table 150 (col. 12, lines 5-22). At column 12, lines 5-22, Garg et al. discloses:

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By updating configuration log 158 each time the network configuration changes, the combination of configuration log 158 and base configuration table 150 can reconstruct the configuration of the network at previous points in time. Base configuration table 150 provides the "current" configuration, and the appropriate changes can be made to identify a previous network configuration by searching for appropriate entries in configuration log 158.

By way of example, assume that the "current" time is 8:00 a.m. on Jul. 1, 1998. If a user desires to know the configuration of the network on Jan. 1, 1998 at 8:00 a.m., then configuration log 158 need simply be searched for any changes which occurred after Jan. 1, 1998 at 8:00 a.m. By working "backwards" from base configuration table 150, any such identified changes can be "reversed" and a table generated of the network configuration as it existed on Jan. 1, 1998 at 8:00 a.m.

Garg et al. discloses that by working backwards from base configuration table 150 (i.e., the current network configuration) and applying changes that have been recorded in configuration log 158, "a table [can be] generated of the network configuration as it existed [at some prior time]" (col. 12, lines 14-22).

This is very different from what is recited in claim 1. Claim 1 recites replaying network operation as the network operation occurred during the time period. By contrast, Garg et al. discloses recreating a network configuration as it existed at some previous point in time (col. 12, lines 14-22).

The disclosure of Robins et al. provides nothing to cure these deficiencies in the disclosure of Garg et al. The Examiner relied on Robins et al. for allegedly disclosing "a motivation of having a switch operator interface 13 with a monitoring node 11" and cited column 5, lines 20-55, of Robins et al. for support (Final Office Action, page 3). While Robins et al. appears to disclose an operator interface 13 that is used for access to configuration programs running in the switching nodes and that communicates with the switching node 1 (col. 4, lines 29-33), nowhere in the section identified by the Examiner,

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or elsewhere, does Robins et al. disclose or suggest replaying, for an operator, network operation as the network operation occurred during the time period, as recited in claim 1.

If the Examiner persists with this rejection, Applicant respectfully requests that the Examiner either identify where this feature of claim 1 is taught by Garg et al. or Robins et al. or withdraw the rejection.

Further, the Examiner has failed to provide the requisite motivation for combining the disclosures of Garg et al. and Robins et al. When rejecting a claim under 35 U.S.C. § 103, the Examiner is required to explain how and why one having ordinary skill in the art would have been led to modify an applied reference and/or combine applied references to arrive at the claimed invention. In establishing motivation, it has been consistently held that the requisite motivation to support the conclusion of obviousness is not an abstract concept, but must stem from the prior art as a whole to impel one having ordinary skill in the art to modify a reference or combine references with a reasonable expectation of successfully achieving some particular realistic objective.

The Examiner provided no such motivation. Instead, the Examiner simply alleged that "[a]s both references disclose network communications in general, and more particularly network monitoring of a communications network, examiner notes a motivation to combine the subject matter as a whole for both references" (Final Office Action, page 4). This allegation by the Examiner is a mere conclusory statement that fails to explain how and why one having ordinary skill in the art would have been led to combine applied references to arrive at the claimed invention, as the Examiner is required

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to do. Because the Examiner did not provide the requisite motivation for combining the disclosures of Garg et al. and Robins et al., the Examiner has failed to establish a prima facie case of obviousness with regard to claim 1.

For at least the foregoing reasons, Applicant submits that claim 1 is patentable over Garg et al. and Robins et al., whether taken alone or in any reasonable combination. Claims 2, 3, and 6-11 depend from claim 1 and are, therefore, patentable over Garg et al. and Robins et al. for at least the reasons given with regard to claim 1. Claims 2, 3, and 6-11 are also patentable for reasons of their own.

For example, claim 7 recites displaying the network operation to the operator as an interactive network topology diagram. Neither Garg et al. nor Robins et al., whether taken alone or in any reasonable combination, discloses or suggests this feature. The Examiner did not address this feature and, therefore, did not establish a prima facie case of obviousness with regard to claim 7.

For at least these additional reasons, Applicant submits that claim 7 is patentable over Garg et al. and Robins et al.

When rejecting claims 9 and 10, the Examiner alleged that Robins et al. discloses the recited features (Final Office Action, page 5). Without admitting that the Examiner's rejection is valid, Applicant notes that the Examiner did not provide any evidence as to why one of ordinary skill in art would have been motivated to combine the alleged features of Robins et al. with the system of Garg et al. Therefore, the Examiner did not properly establish a prima facie case of obviousness with regard to claims 9 and 10.

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Applicant noted this deficiency in the Examiner's rejection in the Amendment, filed July 7, 2003. In response, the Examiner alleged that "[t]he Examiner notes the motivation for combining references is taught in the reasoning for claim 1 above" (Final Office Action, page 5). As explained above, the Examiner failed to provide the requisite motivation with regard to claim 1. Therefore, merely referring back to claim 1 is insufficient to provide the requisite motivation.

For at least these additional reasons, Applicant submits that claims 9 and 10 are patentable over Garg et al. and Robins et al.

Furthermore, claim 10 recites displaying the network operation to the operator and permitting the operator to manipulate the displaying of the network operation. The Examiner did not address the feature of permitting the operator to manipulate the displaying of the network operation. Thus, the Examiner did not properly establish a prima facie case of obviousness with regard to claim 10.

For at least these additional reasons, Applicant submits that claim 10 is patentable over Garg et al. and Robins et al.

Claim 11 recites permitting the operator to manipulate the replaying of the network operation. Neither Garg et al. nor Robins et al. discloses or suggests this feature. Because Garg et al. and Robins et al. do not disclose replaying network operation, neither of these references can be relied upon for disclosing permitting the operator to manipulate this replaying of the network operation.

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The Examiner did not address this feature. Thus, the Examiner did not properly establish a prima facie case of obviousness with regard to claim 11.

For at least these additional reasons, Applicant submits that claim 11 is patentable over Garg et al. and Robins et al.

Independent claims 13, 14, 26, and 34 recite features similar to the features described above with regard to claim 1. Claims 13, 14, 26, and 34 are, therefore, patentable over Garg et al. and Robins et al., whether taken alone or in any reasonable combination, for reasons similar to those given with regard to claim 1. Claims 15, 16, and 19-24 depend from claim 14 and claims 35 and 36 depend from claim 34 and are, therefore, patentable over Garg et al. and Robins et al. for at least the reasons given with regard to claims 14 and 34. Claims 15, 16, and 19-24 also recite features similar to the features described above with regard to claims 2, 3, and 6-11. Claims 15, 16, and 19-24 are, therefore, also patentable over Garg et al. and Robins et al. for reasons similar to those given with regard to claims 2, 3, and 6-11.

Independent claim 27 recites a combination of features of a computer-readable memory device of a node in a network containing a network operations data structure. The memory includes a first area that stores information regarding node status changes; a second area that stores information regarding messages received and transmitted by the node; and a third area that stores information regarding link status changes in the network.

When rejecting claim 27, the Examiner simply alleged "using a reasonable but broad interpretation of 'area' Garg discloses all three areas as shown in figure 3" (Final Office Action, page 5). The Examiner also alleged that Robins et al. discloses a motivation of having a switch

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operator interface with a monitoring node (Final Office Action, pages 5-6). The feature for which the Examiner is relying on Robins et al. is not recited in claim 27. Therefore, the Examiner appears to be alleging that Garg et al. anticipates the claim, instead of relying on a combination of Garg et al. and Robins et al. in an obviousness rejection. Clarification of the grounds of rejection is again respectfully requested.

Nevertheless, neither Garg et al. nor Robins et al. discloses the combination of features recited in claim 27. In Fig. 3, Garg et al. illustrates the data reduction module. At column 5, lines 37-46, Garg et al. describes Fig. 3 as:

FIG. 3 illustrates a data reduction module 32 according to one embodiment of the present invention. Reduction module 32 includes performance recordation control 42 to generate and update as necessary the various tables and logs maintained for storage of information regarding network performance in accordance with the present invention. Reduction module 32 also includes configuration recordation control 44 to generate and update as necessary the various tables and logs maintained for storage of information regarding network configuration in accordance with the present invention.

Nowhere in this section does Garg et al. disclose or suggest the first, second, and third areas recited in claim 27. In Figs. 5-8, 10, 11, 15, and 16, Garg et al. illustrates various tables provided in the system. It is important to note that all of these tables are stored by network monitor 22 of Garg et al. and that none of these tables record any information regarding the operation of network monitor 22 (see, generally, col. 5, lines 37-46; col. 6, lines 17-24).

By contrast, claim 27 is directed to a computer-readable memory device of a node in a network that includes, for example, a first area that stores information regarding node status changes and a second area that stores information regarding messages received and transmitted by the node. Garg et al. does not disclose such first and second areas. In other words, if network

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monitor 12 of Garg et al. is alleged to be the equivalent of the node recited in claim 27, none of the tables in Garg et al. includes information regarding status changes of the network monitor or information regarding messages received and transmitted by the network monitor. Garg et al. also does not disclose a third area that stores information regarding link status changes. The disclosure of Robins et al. does not cure these deficiencies in the disclosure of Garg et al.

Applicant noted these deficiencies in the disclosures of Garg et al. and Robins et al. in the Amendment, filed July 7, 2003. The Examiner repeated the rejection and clarified why Robins et al. was being relied upon, but did not address any of the arguments provided by Applicant.

If the Examiner persists with this rejection, Applicant respectfully requests that the Examiner either particularly identify where each of the features is disclosed or suggested by Garg et al. or Robins et al. or withdraw the rejection.

For at least the foregoing reasons, Applicant submits that claim 27 is patentable over Garg et al. and Robins et al., whether taken alone or in any reasonable combination. Claims 28-31 depend from claim 27 and are, therefore, patentable over Garg et al. and Robins et al. for at least the reasons given with regard to claim 27. Claims 28-31 are further patentable for reasons of their own.

For example, claim 28 recites that the node status change information includes information regarding state changes of the node and time stamps indicating times corresponding to the state changes. Neither Garg et al. nor Robins et al. discloses or suggests these features.

The Examiner alleged that Garg et al. discloses these features and cited Figs. 5-10 of Garg et al. for support (Final Office Action, page 6). Applicant disagrees. As explained above,

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these figures of Garg et al. illustrate tables maintained by network monitor 12. If network monitor 12 is alleged to be the equivalent of the node recited in claims 27 and 28, none of the tables in Garg et al. includes information regarding state changes of the network monitor. The disclosure of Robins et al. provides nothing to cure these deficiencies in the disclosure of Garg et al.

Similar arguments can be made for claims 29 and 30.

For at least these additional reasons, Applicant submits that claims 28-30 are patentable over Garg et al. and Robins et al.

Claim 31 recites a fourth area that stores a forwarding table for the node. Neither Garg et al. nor Robins et al. discloses or suggests this feature.

The Examiner alleged that Garg et al. discloses this feature and cited Figs. 5-10 of Garg et al. for support (Final Office Action, page 6). Applicant disagrees. As explained above, these figures of Garg et al. illustrate tables maintained by network monitor 12. If network monitor 12 is alleged to be the equivalent of the node recited in claims 27 and 31, none of the tables in Garg et al. includes a forwarding table for the network monitor. The disclosure of Robins et al. provides nothing to cure these deficiencies in the disclosure of Garg et al.

For at least these additional reasons, Applicant submits that claim 31 is patentable over Garg et al. and Robins et al.

Claim 32 recites a combination of features of an interactive graphical user interface for visualizing a network having a plurality of nodes. The graphical user interface includes a network topology diagram configured to display at least some of the nodes, links connecting the

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nodes, and messages transmitted through the network, and replay controls that permit an operator to control a replay sequence of the network as the network operates over a period of time.

Neither Garg et al. nor Robins et al. discloses or suggests this claimed combination. The Examiner rejected these features, alleging that they would have been obvious to a skilled artisan (Final Office Action, page 6). The Examiner further alleged that Robins et al. discloses a network topology and Garg et al. discloses replay controls (Final Office Action, page 6). The Examiner provided no evidence to support the Examiner's allegation that Garg et al. discloses replay controls. Applicant submits that Garg et al. does not disclose replay controls that permit an operator to control a replay sequence of the network as the network operates over a period of time, as recited in claim 32.

Further, the Examiner again failed to provide the requisite motivation for combining the disclosures of Garg et al. and Robins et al. Absent such motivation, the disclosures of Garg et al. and Robins et al. cannot be properly combined.

For at least these reasons, Applicant submits that claim 32 is patentable over Garg et al. and Robins et al., whether taken alone or in any reasonable combination.

For at least the foregoing reasons, Applicant submits the claims 1-3, 6-11, 13-16, 19-24, 26-32, and 34-36 are patentable over Garg et al. and Robins et al., whether taken alone or in any reasonable combination. Accordingly, it is respectfully requested that the rejection of claims 1-3, 6-11, 13-16, 19-24, 26-32, and 34-36 under 35 U.S.C. § 103 be reconsidered and withdrawn.

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In paragraph 6 of the Final Office Action, the Examiner rejected claims 4, 5, 17, and 18 under 35 U.S.C. § 103(a) as allegedly unpatentable over Garg et al. in view of Robins et al. and Feldmann. Applicant respectfully traverses the rejection.

Claims 4, 5, 17, and 18 variously depend from claims 1 and 14. Without admitting that the Examiner's rejection is valid, Applicant submits that the disclosure of Feldmann provides nothing to cure the deficiencies in the disclosures of Garg et al. and Robins et al., as described above with regard to the features of claims 1 and 14. Therefore, claims 4, 5, 17, and 18 are patentable over Garg et al., Robins et al., and Feldmann, whether taken alone or in any reasonable combination, for at least the reasons given with regard to claims 1 and 14. Accordingly, it is respectfully requested that the rejection of claims 4, 5, 17, and 18 under 35 U.S.C. § 103 be reconsidered and withdrawn.

In paragraph 7 of the Final Office Action, the Examiner rejected claims 12, 25, and 33 under 35 U.S.C. § 103(a) as allegedly unpatentable over Garg et al. in view of Robins et al. and Lane. Applicant respectfully traverses the rejection.

Claims 12, 25, and 33 depend from claims 1, 14, and 32, respectively. Without admitting that the Examiner's rejection is valid, Applicant submits that the disclosure of Lane provides nothing to cure the deficiencies in the disclosures of Garg et al. and Robins et al., as described above with regard to the features of claims 1, 14, and 32. Therefore, claims 12, 25, and 33 are patentable over Garg et al., Robins et al., and Lane, whether taken alone or in any reasonable combination, for at least the reasons given with regard to claims 1, 14, and 32. Accordingly, it is

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respectfully requested that the rejection of claims 12, 25, and 33 under 35 U.S.C. § 103 be reconsidered and withdrawn.

In view of the foregoing remarks, Applicant respectfully requests the reconsideration of this application and the timely allowance of the pending claims.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 07-2339 and please credit any excess fees to such deposit account.

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